Catawba County Environmental Health **828-465-8270**

DISINFECTION PROCEDURES FOR WELLS

New water systems and those water systems that have been subjected to repair or contamination must be thoroughly disinfected before use. Handling and storage of materials, supplies, and equipment during construction make contamination almost certain. Surface water can enter improperly constructed wells and cause coliform or fecal bacteria contamination. Chlorine and chlorine compounds are effective disinfecting agents when properly used.

To obtain satisfactory disinfection with chlorine compounds, it is necessary that three conditions be satisfied:

1. The chlorine solution must be strong enough. (i.e. 100 ppm residual chlorine)
2. There must be adequate mixing of the water being disinfected and the chlorine solution.
3. Ample time of contact must be allowed between the chlorine solution and the items being disinfected. (24 hours contact time)

A satisfactory disinfecting solution of chlorine concentrate and water can be prepared by mixing chlorine (calcium hypochlorite) small tablets (approximately 1") or granular powder (HTH, Chlor-Tabs, etc) to 3-4 gallons of water. Approximately two (2) ounces of 70% HTH are needed for 100 gallons of water in the well. For example: a 6" drilled well has 1.5 gallons of water per foot of water depth and a 24" bored well has 23.5 gallons of water per foot of water depth. You must know the depth and static water level of your well to accurately perform the calculation.

The well should be disinfected as follows:

1. For a bored well you should mix the required amount of chlorine concentrate with 3 – 4 gallons of water and pour into the well while distributing over the inner surface of the well casing as evenly as possible. Start pump and connect a garden hose to an outside faucet. Wash down casing or tile with the chlorine water being pumped for the well. This method of recirculation aids in sterilization of the well.
2. For a 6" drilled well you should pour the chlorine solution through the sanitary well seal by removing the well vent or plug located on the well seal. You may need a funnel to pour the solution into the hole which is usually only ¾" in diameter.
3. Pump water from the well until it has a strong chlorine odor at each house faucet in your home. Turn off all faucets.
4. Stop pump and allow the chlorine to remain in the well for at least 24 hours. (Do not use chlorinated water for drinking, cooking, washing clothes, or bathing.) Flushing commodes with the chlorinated water will be permissible for a short period of time (overnight).
5. After 24 hours of contact time has passed you may start purging the chlorinated water from the well at an outside faucet. You may only want to run your well for short periods of time depending on how much water is in your well so you will not run the well dry or overheat the pump. DO NOT PURGE the chlorinated water from an inside faucet as to keep it out of the septic tank system.
6. You may call the Environmental Health Department for a bacteriological water sample after the chlorine has been completely purged from your well and plumbing system for 48 hours.